

CLAIMS

1. (Canceled)

2. (New): A device for cleaning a reservoir or pool by generating a water jet substantially parallel to the inner surface of said reservoir or pool, adapted to be attached to a bottom wall of said reservoir or pool, said wall being shaped as a comparatively thin partition, said device comprising:

- a. an inlet pipe (13) adapted to be coupled to an intermittent supply of water under pressure;
- b. a piston (21) substantially cylindrical, movable between a lower rest position and an upper operating position, slidably fitted inside a tubular body (11), said piston being provided with a substantially horizontal outlet duct (29) located close to the upper surface (25) of said cylinder in an eccentric position relative to the cylinder vertical axis;
- c. the upward force which moves said cylinder from its lower rest position to its upper rest position being provided by pressure of water delivered through said inlet pipe (13) when the control valve is opened, said cylinder returning to its lower resting position when said valve is closed;
- d. said device being adapted to be attached to the bottom wall of a reservoir or pool, wherein said attachment is provided by the mutual compression of a lower flange (14) juxtaposed to the external underside (15) of the thin partition which constitutes the bottom of the reservoir or pool, and at least an upper flange (17) juxtaposed to the internal upper surface of said thin partition, said device being attached to said lower flange.

3. (New): A cleaning system for a reservoir or pool comprising a plurality of devices for cleaning the reservoir or pool by generating a water jet substantially parallel to the inner surface of said reservoir or pool, the devices being adapted to be attached to a bottom wall of said reservoir or pool, said wall being shaped as a comparatively thin partition, the system comprising:

- a. a sequencer and
- b. a plurality of control valves actuated by said sequencer, each control valve being operatively connected to feed water from a supply of water under pressure intermittently to one or more of said devices,
- c. each of said plurality of devices comprising:

- i. an inlet pipe (13) coupled to said supply of water under pressure by one of said control valves actuated by said sequencer;
- ii. a piston (21) substantially cylindrical, movable between a lower rest position and an upper operating position, slidingly fitted inside a tubular body (11), said piston being provided with a substantially horizontal outlet duct (29) located close to the upper surface (25) of said cylinder in an eccentric position relative to the cylinder vertical axis;
- iii. the upward force which moves said cylinder from its lower rest position to its upper rest position being provided by pressure of water delivered through said inlet pipe (13) when the corresponding valve of the sequencer is opened, said cylinder returning to its lower resting position when said valve is closed;
- iv. said device being adapted to be attached to the bottom wall of a reservoir or pool by the mutual compression of a lower flange (14) juxtaposed to the external underside (15) of the thin partition which constitutes the bottom of the reservoir or pool, and at least an upper flange (17) juxtaposed to the internal upper surface of said thin partition, said device being attached to said lower flange.

4. (New): A cleaning system as claimed in claim 3, wherein the sequencer is adapted to precede closure of a present one valve of said plurality of control valves by the opening of a next valve of said plurality of control valves.

5. (New): A cleaning system as claimed in claim 4, wherein rotation of the piston (21) occurs during its return to the resting position, said rotation being provided by the reaction of the residual water jet issuing from said outlet duct in the time interval between the opening of the next valve and the closing of the present valve.

6. (New): A method of operating a cleaning system for a reservoir or pool comprising a plurality of devices for cleaning the reservoir or pool by generating a water jet substantially parallel to the inner surface of said reservoir or pool, the devices being attached to a bottom wall of said reservoir or pool, the system comprising:

- a. a sequencer and
- b. a plurality of control valves actuated by said sequencer, each control valve being operatively connected to feed water from a supply of water under pressure intermittently to one or more of said devices,
- c. each of said plurality of devices comprising:

- i. an inlet pipe (13) coupled to said supply of water under pressure by one of said control valves actuated by said sequencer;
- ii. a piston (21) substantially cylindrical, movable between a lower rest position and an upper operating position, slidingly fitted inside a tubular body (11), said piston being provided with a substantially horizontal outlet duct (29) located close to the upper surface (25) of said cylinder in an eccentric position relative to the cylinder vertical axis;
- iii. the upward force which moves said cylinder from its lower rest position to its upper rest position being provided by pressure of water delivered through said inlet pipe (13) when the corresponding valve of the sequencer is opened, said cylinder returning to its lower resting position when said valve is closed;

wherein the sequencer precedes closure of a present one valve of said plurality of control valves by the opening of a next valve of said plurality of control valves, whereby ram stroke is minimized.

7. (New): A method as claimed in claim 6, wherein rotation of the piston (21) occurs during its return to the resting position, said rotation being provided by the reaction of the residual water jet issuing from said outlet duct in the time interval between the opening of the next valve and the closing of the present valve.